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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,916	03/28/2001	Robert C. Sundahl	INTL-0392-US(P8834)	4365

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EXAMINER

PHINNEY, JASON R

ART UNIT PAPER NUMBER

2879

DATE MAILED: 01/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/819,916

Applicant(s)

SUNDAHL, ROBERT C.

Examiner

Jason Phinney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The Amendment filed on 11/26/02 has been entered and acknowledged by the Examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 6,097,455 to Babuka.

Babuka discloses a flat panel display with a tiled array of display elements (See Figure's 1 or 8, #'s 14a and 14b). Each display element has a front surface that emits light (Figure 1, #'s 14a and 14b top surface), a back surface that does not substantially emit light (Figure 1, #'s 14a and 14b bottom surface), a seam between adjacent display elements (see gap between panels 14a and 14b in Figure 1), and a strap attached to the back surface along the seam length between display elements (Figure 1, #21b).

3. Claims 2, 3, 5, and 6 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 6,097,455 to Babuka.

Babuka discloses the display of Claim 1 as described above.

Regarding Claim 2, Babuka further discloses that there should be a plurality of straps over a plurality of seams (In Figure 3 Babuka shows plural perpendicular seams and on Column 6, Lines 40-43 Babuka discloses that each of the seams is to have a strap (called a mask) both in front and behind the seam).

Regarding Claim 3, Babuka discloses that the straps should be perpendicular to each other (In Figure 3 Babuka shows plural perpendicular seams and on Column 6, Lines 40-43 Babuka discloses that each of the seams is to have a strap (called a mask) both in front and behind the seam).

Regarding Claim 5, Babuka discloses that the perpendicular straps (Mask) are attached to the frame (called a Back plate; see Column 3, Lines 41-43).

Regarding Claim 6, Babuka further discloses a frame (Called a Back plate see Column 3, Lines 41-43).

4. Claim 11 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 6,097,455 to Babuka.

Babuka discloses a method of arranging an array of display elements (See Figure's 1 or 8, #'s 14a and 14b) to produce a flat panel display. Each display element has a front surface that emits light (Figure 1, #'s 14a and 14b top surface), a back surface that does not substantially emit light (Figure 1, #'s 14a and 14b bottom surface), a seam between adjacent display elements (see gap between panels 14a and 14b in Figure 1), and securing a strap to the back surface along the seam length between adjacent display elements (Figure 1, #21b).

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5. Claim 12 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 6,097,455 to Babuka.

Babuka discloses the method of claim 11 as described above. Babuka further discloses that the straps should be secured across the seams so that they are perpendicular (In Figure 3 Babuka shows plural perpendicular seams and on Column 6, Lines 40-43 Babuka discloses that each of the seams is to have a strap (called a mask) both in front and behind the seam).

6. Claim 17 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 6,097,455 to Babuka.

Babuka discloses a method of arranging an array of display elements (See Figure's 1 or 8, #'s 14a and 14b) to produce a flat panel display. Each display element has a front surface that emits light (Figure 1, #'s 14a and 14b top surface), a back surface that does not substantially emit light (Figure 1, #'s 14a and 14b bottom surface), a seam between adjacent display elements (see gap between panels 14a and 14b in Figure 1), and a strap secured to the back surface along the seam length between adjacent display elements (Figure 1, #21b). Babuka further discloses a front surface of the flat-panel display (Figure 1, #20) from which the stress would be redistributed to the straps.

7. Claims 18-20 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 6,097,455 to Babuka.

As described above, Babuka discloses the method of claim 17.

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Regarding Claim 18, the straps of Babuka would function to redistribute a bending stress applied on the front surface toward the rear of the display as compression in the straps (Figure 1, #21b).

Regarding Claim 19, the straps of Babuka would function to redistribute a bending stress applied on the front surface toward the front of the display as tension in the straps (Figure 1, #21b).

Regarding Claim 20, Babuka discloses that the straps should be adhesively secured to the display in a grid pattern (In Figure 3 Babuka shows plural seams in a grid pattern and on Column 6, Lines 40-43 Babuka discloses that each of the seams is to have a strap (called a mask) both in front and behind the seam).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,097,455 to Babuka in view of U.S. Patent No. 6,498,592 to Matthies.

Babuka discloses the flat panel display of Claims 1 and 2 as described above.

Babuka fails to exemplify that the perpendicular straps are connected to one another.

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Matthies, in the similar field of tiled displays teaches of using perpendicular straps (Figure 13A, #2010) that are connected to one another in order to prevent the straps from moving out of place.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to attach the perpendicular straps of Babuka as taught by Matthies in order to prevent the straps from moving.

9. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,097,455 to Babuka in view of U.S. Patent No. 6,343,862 to Sawai.

Babuka discloses the flat panel display of Claims 1 and 2 as described above.

Regarding Claim 9, the straps of Babuka would serve to redistribute a bending stress applied on the panels toward the front of the display as tension in the straps (Figure 1, #21b).

Regarding Claim 10, the straps of Babuka would serve to redistribute bending stress applied on the panels toward the rear of the display as compression in the straps (Figure 1, #21b).

Regarding Claim 7, Babuka does not exemplify that there should be an optical integrator attached to the front surface of the display.

Regarding Claim 8, Babuka does not exemplify that the straps should redistribute the stress from an optical integrator to the straps.

Sawai, in the similar field of LCD displays teaches of using an optical integrator (Column 2, Lines 6-11) in order to make the light distribution more uniform. Were this integrator applied to the front panel of Babuka's display then the straps would function to redistribute the stress from the display to the straps.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the display panel of Babuka with the optical integrator of Sawai in order to create a display with a more uniform light distribution.

10. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,097,455 to Babuka in view of U.S. Patent No. 6,343,862 to Sawai.

Babuka discloses the method of producing a flat panel display of Claims 11 as described above.

Regarding Claim 13, Babuka does not exemplify that there should be an optical integrator attached to the front surface of the display.

Regarding Claim 14, Babuka does not exemplify that the straps should redistribute the stress from the optical integrator to the straps; however the straps of Babuka would act to perform this function should an optical integrator be attached to the front surface (Figure 1, #21b).

Regarding Claim 15, while Babuka does not exemplify the optical integrator, the straps of Babuka would function to redistribute a bending stress applied on an optical integrator toward the front of the display as tension in the straps (Figure 1, #21b).

Regarding Claim 16, while Babuka does not exemplify the optical integrator, the straps of Babuka would function to redistribute a bending stress applied on an optical integrator toward the rear of the display as compression in the straps (Figure 1, #21b).

Sawai, in the similar field of LCD displays teaches of using an optical integrator (Column 2, Lines 6-11) in order to make the light distribution more uniform. Were this Integrator applied

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to the front panel of Babuka's display then the straps would function to redistribute the stress from the display to either compression or tension in the straps.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the display panel of Babuka with the optical integrator of Sawai in order to create a display with a more uniform light distribution.

Response to Arguments

11. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant's arguments filed 11/26/02 have been fully considered but they are not persuasive.

In response to the Applicant's argument that the support of Kikuno is not attached on the seam of the display elements the Examiner respectfully disagrees. Figure 11 clearly shows the support to be located at the intersection of the seams.

In response to the Applicant's argument that the straps (#41) of Kikuno are not in direct contact with the seam but rather spaced therefrom by elements 21 and 22 the Examiner agrees, however, the Applicant had failed to claim that it was necessary for the straps to be positioned as such and the argument is therefore irrelevant to the patentability of the invention as was previously claimed. The new grounds of rejection address this amendment to the claims in that only adhesive is located between the straps and the seams.

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Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Phinney whose telephone number is (703) 305-3999. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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JP

January 6, 2003



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